Station Facts

The land for Central Crops Research Station was purchased in December 1953 to replace the McCullers Branch Station, which was located in Wake County. The 518-acre Central Crops Research Station is located 20 miles from the main NCSU campus and hosts a wide range of plant breeding programs that require frequent visits from campus staff.
The station hosts an ECONET weather reporting station that feeds onsite data to the State Climatology Office headquartered at the Raleigh campus of N.C. State University and to the National Weather Service offices in the region. In addition to the ECONET tower, the National Weather Service installed a 700 watt doppler radar tower that can detect severe weather conditions within a 250 mile radius. The station celebrated 50 years of agriculture research in September of 2006.

Infrastructure

The station encompasses 40 buildings or equipment sheds, including three greenhouses and specialized facilities for seed processing, seed storage and curing of tobacco and sweetpotatos.

New facilities include an experimental burley tobacco curing barn and equipment housing for the soybean breeding program.

Events

CCRS plays host to Farm Bureau's "Ag in the Classroom" program for North Carolina science teachers each year.

Strawberry Field Day is held annually in late April.

Research Programs

Central Crops Research Station has played a significant part in field research and numerous scientific achievements including the release of new varieties. Research is conducted on corn, cotton, soybeans, tobacco, small grains sweet potatoes, strawberries, watermelons, squash, apples, peaches, grapes, forage crops, wild flowers, and canola.
The agricultural research projects continue to change to reflect the needs of our society and to address new challenges within the agricultural community.

Swine Swine research is conducted in a grant-supported facility that is industry driven and accepts animals from outside sources. The program focuses on the improving the commercial industry. Research is also conducted on animal waste management. The world record Hampshire boar, "Last Laugh," gained 3.2 pounds per day on test at Central Crops Swine Unit.

Field Crops In the corn breeding program, more than 100 inbred corn lines have been released in addition to the early research on molecular markers that lead to current methods of DNA-based selection techniques. Many soybean varieties have been developed by the plant breeding program. Pickett, the first soybean variety with resistance to soybean cyst nematodes, was developed at CCRS. Others soybean varieties include Ransom, Young, Vance, Nitrasoy and Satelite, a heart-smart soybean with half the saturated fat. CCRS is also the site of the first documentation of male sterility in soybeans. More than 14 varieties of tobaccos are studied, including NC-12, NC-13, NC-55, and NC-71. North Carolina tobacco varieties dominate more than 55 percent of the acreage in the southeast. The initial cross of the Covington variety of sweet potato was performed at Central Crops.

Horticulture CCRS presently conducts research on strawberries, watermelons, apples, peaches, grapes and some vegetables. The horticultural breeding program has released Muscadine grape varieties such as Noble, Carolos, Doren, Regal, Dixie, Sterling and Nesbitt. The tomato varieties Venus and Saturn for fresh market, and Wolfpack I and II for processing, plus the watermelon variety Sweet Princess were developed at CCRS.

Other Research More than 40 project leaders currently conduct research on site with more than 140 research objectives. Projects are generally highly technical with high labor input. For example: half the resources on the station are devoted to plant breeding and genetic research. Nematode research in micro plots led to the development of damage thresholds for six major crops, leading North Carolina to become the first state to offer a Nematode Advisory Program. The station hosts numerous studies in disease, insect, nematode and weed control, plus studies on environmental interactions and variety evaluations. Research has expanded into alternative energy crops as well as improving the nutritional and health related benefits of traditional crops.The plant breeding program is a unique combination of traditional plant breeding and newer molecular programs.

Community Partnership

The Central Crops Research Station hosts a wide range of plant breeding programs which are labor intensive and require frequent, if not daily, visits from N.C. State University researchers. The station serves as a teaching platform for undergraduate field trips, graduate classes and continuing education, with more than 700 visitors each year.

The conveniently located station allows graduate students to conduct hands-on field research while maintaining a full academic schedule.

The CCRS research program changes each year but remains committed to supporting the scientists and students of N.C. State University.

The station also supports education programs at the local level. CCRS provides weekly on-site training for high school students engaged in the Occupational Course of Study. Various groups, from high school environmental teams to continuing education programs for professionals with the N.C. Department for Environment and Natural Resources utilize the permanent soil pits and the station's unique soil profiles to learn about soil and water interactions. In addition, groups from local public and private schools also visit the station to learn about agriculture and its future.

Research Stations Division

Working together for one cause

Mission

To manage crop and livestock facilities that serve as a platform for agriculture research to make farming more efficient, productive, and profitable, while maintaining a sound environment and providing consumers with safe and affordable products.

Partnership

Agriculture research in North Carolina dates back to 1877, when state legislation established the North Carolina Department of Agriculture along with "Experiment Stations" as a division of the department. Since that time, the North Carolina Department of Agriculture and Consumer Services' (NCDA&CS) Research Stations Division, in partnership with North Carolina State University, has established 18 statewide locations. Each facility has unique climate and soil conditions, giving researchers a living laboratory in which to investigate a variety of regional crops, forestry concerns, livestock, poultry, and aquaculture. The Division supports these studies by providing land, water, equipment, buildings, and staff who work around the clock to help build a stronger foundation for the future of agriculture.

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